



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

381. *By Prof. W. P. Casey.* — To find a point in a given line so that the rectangle contained by two lines drawn to it from two given points may be given or a minimum (without the aid of the Cassinian Ovals).

382. *By Thomas Spencer.* — Prove in general that the chord drawn through a given point so as to cut off the minimum area from a given curve is bisected at that point.

383.—*By Prof. Edmunds* — Solve and discuss:

$$\begin{cases} x^2 + y^2 = a^2, \\ \log x + \log y = n. \end{cases}$$

384. *By Prof. Asaph Hall.* — “Show that

$$\int_0^a dx \int_0^x \varphi(x, y) \cdot dy = \int_0^a dy \int_y^a \varphi(x, y) dx.$$

(Dirichlet’s theorem.)”

385. *Selected by Prof. H. T. Eddy.* — Show that

$$\begin{aligned} \int_{-\infty}^{+\infty} \varepsilon \left( -\cos 2\theta + \frac{a^2}{2x^2} \sin 2\theta \right) \frac{\cos}{\sin} \left[ x^2 \sin 2\theta + \frac{a^2}{2x^2} \cos 2\theta \right] dx \\ = \pi^{\frac{1}{2}} \varepsilon^{-a} \frac{\cos}{\sin} \left[ \theta + a \right]. \end{aligned}$$

386. *By George Eastwood.* — Integrate the equation

$$\frac{d^2 \phi}{dt^2} \cdot \frac{d^2 \psi}{dx^2} - \left( \frac{d\phi}{dt} \cdot \frac{d\psi}{dx} \right)^2 = 0.$$

#### PUBLICATIONS RECEIVED.

*On Gauss’s Method of Computing Secular Perturbations with an Application to the action of Venus on Mercury*, by GEORGE W. HILL, Assistant American Ephemeris. 4to. 1881.

*The Strophoids*, by WILLIAM WOOLSEY JOHNSON. Reprinted from the American Journal of Mathematics, Vol. III.

*Solution of a Geometrical Problem*, by PROF. E. B. SEITZ. Reprinted from the Mathematical Visitor, Vol. II, No. 1.

#### ERRATA.

On page 5, line 7, for  $a, b, c$  and  $d$  under the radicals, read  $a^5, b^5, c^5, d^5$ .

“ “ 8, “ 6 from bottom, for presumptuous, read presumptuous.

“ “ 12, lines 6 and 22, for  $x'$ , read  $x_1$ .

“ “ 16, “ 16, for  $2\gamma$ , read  $2r$ .

“ “ 20, line 18, for by, read into.

“ “ 21, “ 11, from bottom, for twice, read four times.